

## **ABSTRACT OF THE DISCLOSURE**

The present invention relates to a local retransmission scheme, which uses Transport Control Protocol (TCP) in an unreliable network. It provides reliable transmission for out-of-order TCP data packet in an unreliable link. It recovers non-congestion loss packets. It avoids incorrect adjustment of window size in TCP source end. It applies TCP local retransmission scheme, which checks together a link layer transfer sequence and a TCP source delivery sequence. With inserting timestamp of local sequence number, which is in TCP data packet and TCP acknowledgement packet, together with acknowledgement number AN, it is defined whether a data packet is lost and retransmitted. Then, with explicit retransmission ERN feedback, a TCP source false action is avoided. Therefore TCP performance of a wireless network is greatly improved.